

COMPUTER PROGRAM, METHOD, AND DEVICE FOR CONTROLLING THE BRIGHTNESS OF A DISPLAY

5 RELATED APPLICATIONS

The present application is a continuation and claims priority benefit of U.S. Patent
 P.L. Application No. 10/434,343, filed May 8, 2003, ^{US PAT. NO. 6,703,998} titled COMPUTER PROGRAM, METHOD,
 AND DEVICE FOR CONTROLLING THE BRIGHTNESS OF A DISPLAY, incorporated by
 H.L. specific reference herein, which is a continuation of ^{09/866,000,} U.S. Patent No. 6,590,561, filed May 26,
 10 2001, titled COMPUTER PROGRAM, METHOD, AND DEVICE FOR CONTROLLING THE
 BRIGHTNESS OF A DISPLAY, which is incorporated by specific reference herein.

BACKGROUND OF THE INVENTION

1. Field of the Invention

15 The present invention relates to displays used in electronic devices such as laptop
 computers and avionics and marine equipment. More particularly, the invention relates to a
 computer program and method for controlling the brightness of a display by proportionally
 modifying the luminosity of each pixel in the display.

20 2. Description of the Prior Art

Thin-film transistor (TFT) liquid crystal displays (LCDs) and other types of
 displays are commonly used in a variety of electronic devices, including laptop computers,
 avionics and marine equipment, and global positioning satellite (GPS) receivers. Such displays
 typically have back lights that may be adjusted to brighten the displays when used in bright light
 25 and dim the displays when used in low light.

Adjusting the brightness of a back light to brighten or dim a display works well
 in most applications; however, back lights can only be dimmed so much before they effectively
 turn off entirely. Thus, once the lowest threshold of a back light has been reached, its display
 cannot be effectively dimmed any further. Those skilled in the art will appreciate that it is often
 30 desirable to dim a display beyond the lowest threshold of its back light in some environments
 such as in the cockpit of an aircraft or boat at night.